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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/447,886	11/24/1999	KAZUMASA OISHI	PM-265102	4411

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EXAMINER

LAMB, BRENDA A

ART UNIT	PAPER NUMBER
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1734

18

DATE MAILED: 08/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 09/447,886	Applicant(s) Dishi et al
Examiner LAMB	Group Art Unit 1734

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 5/22/02
- ☐ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 3-19 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 3-19 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☒ The proposed drawing correction, filed on 5/22/02 is ☒ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).
- *Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

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DETAILED ACTION

Receipt is acknowledged of the "conditional" request for a Continued Prosecution Application (CPA) filed on 5/22/02 under 37 CFR 1.53(d) based on prior Application No. 09/447,886. Any "conditional" request for a CPA submitted as a separate paper is treated as an unconditional request for a CPA. Accordingly, the request for a CPA application is acceptable and a CPA has been established. An action on the CPA follows.

Claims 3-4 and 6-19 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The originally filed specification fails to teach or suggest the protrusion being formed to reduce an annular low-pressure region around the optical fiber satisfies one of the following relationships:

$0.05G < H < 0.5G$ (claim 3 or claim 6); or the combination of relationships in claim 12- $0.05G < H < 0.5G$ and $(D_2 - D_1)/2 < W < G$; or $(D_2 - D_1)/2 < W < G$ (claim 10); or $0.01 \text{ mm} < L < W$ (claim 11); or the combination of relationships in claim 13- $0.05G < H < 0.05G$ and $0.01 \text{ mm} < L < W$.

The originally filed specification teaches on page 9 at line 23 to page 10 line 15 that the combination of following relationships reduce the longitudinal outside diameter fluctuation of the coated fiber as a result of the reduction of the annular lower-pressure region formed around the optical fiber.

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The originally filed specification fails to teach or suggest the protruding structure or protrusion on the first coating die is dimensioned so that its outermost radius is less than diameter of the first die hole.

The originally filed specification fails to teach or suggest that the protruding structure or protrusion is dimensioned so that the largest dimension thereof which include an outer radius and height is less than a dimension of the gap between the first and second coating die to reduce annular low pressure region around the optical fiber. Note this is so broad that it reads on an apparatus wherein the gap and height of the protruding structure set forth in the claim 14 is very close in size yet gap is greater than height very small amount such as less than a micrometer which is clearly outside the range set forth in the instant specification.

The originally filed specification teaches the relationship between the gap and height is as follows: $0.05G < H < 0.5G$ at page 10 line 1 whereas the above cited relationship in claim 14 is so broad that it reads on relationships of gap and height which is outside the above cited relationship set forth at page 10 line 1 such as one wherein $G > H > 0.5G$.

The originally filed specification filed specification fails to teach or suggest that the apparatus is configured to provide a fiber linear velocity of "about" 500 m/min to "about" 1200 m/min or "approximately" 1000 m/min.

If applicant disagrees as to the new matter rejection then applicant needs to specifically point out support by providing page number and line number in the originally filed specification for such claim language.

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Claims 5 and 13-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 5 and 13 are confusing since it is unclear as to the relationship between "L" and "0.01mm". Claims 14 and 15 are confusing since it is unclear what a "substantially planar save" at line 4 of claims 14-15 encompasses. It is unclear how the recitation the apparatus is configured to provide a fiber velocity set forth in claims 16-19 structurally further limits the apparatus claim since applicant has claimed no means for driving the fiber. It is unclear how recitation at lines 18-19 of claim 15 that protruding structure is dimensioned so that its outermost radius is less than diameter of the first die hole further limits the apparatus claim since applicant at lines 5-6 recites the protruding structure is substantially concentrically arranged "about" or around first die hole.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was

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made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3-4 and 10-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor.

Taylor teaches the design of an optical fiber coating apparatus comprised of the following elements: a first coating die 101 having a first die hole, a lower end face and a protrusion formed around the first die hole such that the fiber traveling through the first die hole is coated by a first coating resin which is injected in the space formed between the first die hole and the outer periphery of the fiber; a second coating die having a second die hole concentric with the first die hole, an upper end face which opposes the lower end face of the first coating die so as to form a gap through which the second coating resin is injected into a space between the second die hole and fiber. Taylor shows in Figure 2 the first die hole has a tapered portion and cylindrical land portion 102 with lower aperture of the land portion opened in the lower end face of first coating die. Taylor fails to teach that the lower end face of the first die is disk shaped and upper end face of the second coating die is circular or satisfies the relationship set forth in claims 3 and 10-15. However, it would have been obvious matter of design choice to design the lower end face of the Taylor first die such that it is disk-shaped and upper end face of the Taylor second die such that it is circular or dimensioned such that the protrusion meets the relationship set forth in above cited claims since such a modification would have involved a mere change in the shape of a component absent persuasive evidence that the particular configuration of the claimed above cited elements

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was significant (In re Dailey, 149 USPQ 47 (CCPA 1966). Taylor fails to teach the protrusion reduces an annular lower-pressure region formed around the fiber in the gap. However, it would have been obvious that the Taylor protrusion would have reduced the annular lower pressure region around the fiber in the gap in order to substantially eliminate recirculation of the second coating liquid in the vicinity of the fiber and especially since the physical presence of the protrusion itself would have reduced the total area of the gap. With respect to claim 4, Taylor fails to teach the shape of protrusion is a circular truncated cone. However, it would have been an obvious matter of design choice to design the Taylor protrusion such that it is a circular truncated cone since such a modification would have involved a mere change in the shape of a component absent persuasive evidence that the particular configuration for the claimed element was significant (In re Dailey, 149 USPQ 47 (CCPA 1966). With respect to claims 16-19, the recitation the apparatus is configured to provide a fiber velocity within the scope of the of the above cited claims is given no patentable weight since no means for providing the fiber at a fiber linear velocity within the scope of the claims is claimed. In any event, it would have been obvious to one of ordinary skill in the art to drive the fiber using a conventional driving means at a rate which is within the scope of the invention in the Taylor apparatus dependent on production requirements of the apparatus.

Claims 3-4 and 10-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 09241042.

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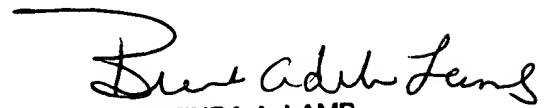
Japan '042 teaches design of an optical fiber coating apparatus comprised of the following elements: a first coating die having a first die hole, a disk shaped lower end face and a protrusion 28 formed around the first die hole such that fiber traveling through the first die hole is coated by a first coating resin which is injected in the space formed between the first die hole and the outer periphery of the fiber, a second coating die having a second die hole concentric with the first die hole, a circular upper end face which opposes the lower end face of the first coating die so as to form a gap through which the second coating resin is injected into a space between the second die hole and fiber. Japan shows in Figure 4 that the first die hole has a taper portion and cylindrical portion with lower aperture of the and portion opened in the lower end face of first coating die. Japan '042 fails to teach the protrusion reduces an annular lower-pressure region formed around the fiber in the gap or satisfies the relationship set forth in claims 3 and 10-15. However, it would have been obvious that the Japan '042 protrusion would have reduced the annular lower pressure region around the fiber in the gap in order to substantially eliminate recirculation of the second coating liquid in the vicinity of the fiber and especially since the physical presence of the protrusion itself would have reduced the total area of the gap. Further, it would have been obvious matter of design choice to design the Japan '042 protrusion such that it meets the relationship set forth in above cited claims since such a modification would have involved a mere change in the shape of a component absent persuasive evidence that the particular configuration of the claimed element was significant (*In re Dailey*, 149 USPQ 47 (CCPA 1966)). With respect to claim 4, Japan '042 fails to teach the protrusion has the shape of a circular truncated cone shape.

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However, it would have been an obvious matter of design choice to design the Japan '042 protrusion such that it is a circular truncated cone since such a modification would have involved a mere change in the shape of a component absent persuasive evidence that the particular configuration of the claimed element was significant (In re Dailey, 149 USPQ 47 (CCPA 1966)). With respect to claims 16-19, the recitation the apparatus is configured to provide a fiber velocity within the scope of the of the above cited claims is given no patentable weight since no means for providing the fiber at a fiber linear velocity within the scope of the claims is claimed. In any event, it would have been obvious to one of ordinary skill in the art to drive the fiber using a conventional driving means at a rate which is within the scope of the invention in the Japan '042 apparatus dependent on production requirements of the apparatus.

Applicant's arguments filed May 22, 2002 have been fully considered but they are not persuasive. Applicant's argument that Taylor '042 and Japan '042 fails to teach a protrusion which is within the scope is found to be non-persuasive. Taylor '042 teaches the first die 101 has a protrusion as shown in Figure 2. Taylor coating die comprising a tapered portion and cylindrical land portion 102. Also Japan '042 also teaches a protrusion which is within the scope of the claims as shown in his Figures.

Any inquiry concerning this communication should be directed to Brenda Adele Lamb at telephone number 703-308-2056. The examiner can normally be reached on Monday and Wednesday-Friday with alternate Tuesday off.


BRENDA A. LAMB
PRIMARY EXAMINER